

**CORPORATE PURCHASING SPECIFICATION**

AA 536 19

Rev. No. 02

PAGE 1 OF 2

**MAGNESITE RAMMING MASS****1.0 GENERAL:**

This specification governs the quality requirements of Magnesite Ramming Mass for use in electric arc furnace.

**2.0 APPLICATION:**

Used as bottom ramming material and for fettling in electric arc furnace in steel melting shop.

**3.0 COMPLIANCE WITH NATIONAL STANDARDS:**

The specification in general is based on IS-15508:2004 Burnt Magnesite Refractories and IS: 1750 – 1995 : Dead Burned Pea Magnesite

**4.0 CONDITION OF DELIVERY:**

The size should be in the range of 0-5 mm. However oversized material should not exceed 5% by weight.

**5.0 CHEMICAL COMPOSITION:**

When analyzed as per the relevant clauses of part 2 and part 3 of IS: 1760, the material shall conform to following composition.

Element	Wet type	Dry type
1) MgO %, minimum	85	82
2) SiO <sub>2</sub> %, maximum	9	5
3) CaO%	<2	9-14
4) LOI % (Loss on ignition)	<1.5	<1.5
5) Fe <sub>2</sub> O <sub>3</sub> %	1.0	1.0

**6.0 FREEDOM FROM DEFECTS:**

The material shall be free from all foreign materials and other harmful contaminants.

**7.0 TEST SAMPLES:**


A composite sample shall be prepared from each consignment of 1 tones or part thereof.

**Revisions :**

As per 23rd MOM of MRC-FN

**APPROVED :**INTERPLANT MATERIAL  
RATIONALISATION COMMITTEE-MRC (FN)

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AA 536 19	CORPORATE PURCHASING SPECIFICATION		
Rev. No. 02			
PAGE 2 OF 2			
8.0	<b>PHYSICAL PROPERTIES:</b>	<b>Wet Type</b>	<b>Dry Type</b>
8.1	<b>Grain Size(95%)</b>	: 0 - 5 mm	0 - 5 mm
8.2	<b>Bulk Density(At11<sup>0</sup> C /24hrs)</b>	: 2.55g/cc	2.2g/cc
8.3	<b>Sintering Temperature</b>	: 1500 <sup>0</sup> C	1200 <sup>0</sup> C
8.4	<b>Application Temperature</b>	: 1650 <sup>0</sup> C	1750 <sup>0</sup> C
8.5	<b>Water Requirement</b>	: 6.9%	No water
8.6	<b>Mode of Setting:</b>	Chemical	Ceramic
	Chemical, when used in wet condition.		
	Ceramic, in dry condition.		
9.0	<b>INSPECTION DEVIATION AND REPLACEMENT:</b>		
	<p>BHEL reserves the right to inspect the material at site before dispatch. The supplier shall intimate in advance enclosing a copy of test certificate of the material offered for inspection. If the material received is not meeting the requirement of this specification, it shall be replaced free of charge by the supplier. Final tests shall be carried out at BHEL and material will be accepted or rejected based on this result. For any deviation demanded by the supplier from the specification, prior approval of BHEL must be obtained in writing.</p>		
10.0	<b>TEST CERTIFICATES:</b>		
	<p>One original and three copies of test certificate from the Manufacturer containing the following information along with test result of clause 4 and chemical composition as per clause 5 should be provided.</p>		
	<p>Manufacturer's Name Name of the material. Quantity.</p>		
	Note:		
	<p>a) A manufacturer supplying directly to BHEL should include BHEL's P.O. number and challan number also in the T.C. b) Any other supplier should provide a covering letter along with original manufacturers T.C as above mentioning BHEL's P.O. number and Challan number. Supplier shall give packing details of the material in the guarantee certificate.</p>		
11.0	<b>PACKING AND MARKING:</b>		
	<p>The material shall be supplied in leak and moisture proof polythene lined gunny bags of 50-1000 kg each. <b>No hooks shall be used to avoid spillage during transit.</b> Each bag shall be legibly marked or labeled with the following. Magnesite Ramming Mass Manufacturer's/Supplier's Name. Net weight.</p>		
12.0	<b>REFERRED STANDARDS (Latest Publications Including Amendments):</b>		
	1) IS: 1760, part 2 and part 3		